

AMENDMENTS TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) ~~An apparatus~~ A system, comprising:
a peripheral component interconnect device (PCID);
a processor;
a memory coupled to the processor; and
~~a data manager;~~
a data structure stored in the memory, wherein the ~~data manager~~ processor utilizes the data structure to maintain information for at least one virtual peripheral component interconnect device (VPCID), wherein the at least one VPCID is a virtualization of the PCID,
and wherein the data structure includes a root structure of a virtual machine (VM) ID array,
wherein each element of the VM ID array represents an unique VM, wherein each element of the VM ID array has an associated set of VPCID instances, wherein each VPCID instance in the VMID array has an associated array of data blobs, wherein each array of data blobs stores state and data information for its associated VPCID instance, wherein each array of data blobs includes at least one configuration register, and where the at least one configuration register is used for configuring VPCID features.

2. (Currently Amended) The ~~apparatus~~ system of claim 1, wherein the

information includes both data and state information.

3. (Currently Amended) The ~~apparatus~~ system of claim 1, wherein the ~~data manager~~ processor utilizes the data structure to maintain information for at least one instance of the at least one VPCID.

4. (Cancelled).

5. (Cancelled).

6. (Cancelled).

7. (Cancelled).

8. (Currently Amended) A computer-implemented method, comprising:
maintaining information for at least one virtual peripheral component interconnect device (VPCID) via a data manager and a data structure, wherein the data structure includes a root structure of a virtual machine (VM) ID array, wherein each element of the VM ID array represents an unique VM, wherein each element of the VM ID array has an associated set of VPCID instances, wherein each VPCID instance in the VMID array has an associated array of data blobs, wherein each array of data blobs stores state and data information for its associated VPCID instance, wherein

each array of data blobs includes at least one configuration register, and where the at least one configuration register is used for configuring VPCID features.

9. (Currently Amended) The computer-implemented method of claim 8, wherein the information includes both data and state information.

10. (Currently Amended) The computer-implemented method of claim 8, further comprising utilizing the data structure by the data manager to maintain information for at least one instance of the at least one VPCID.

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Currently Amended) A tangible machine-readable storage medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

maintaining information for at least one virtual peripheral component interconnect device (VPCID) via a data manager and a data structure, wherein the data structure includes a root structure of a virtual machine (VM) ID array, wherein each element of the VM ID array represents a unique VM, wherein each element of the VM ID array has an associated set of VPCID instances, wherein each VPCID instance in the VMID array has an associated array of data blobs, wherein each array of data blobs stores state and data information for its associated VPCID instance, wherein each array of data blobs includes at least one configuration register, and where the at least one configuration register is used for configuring VPCID features.

16. (Currently Amended) The tangible machine-readable storage medium of claim 15, wherein the information includes both data and state information.

17. (Currently Amended) The tangible machine-readable storage medium of claim 15, further comprising utilizing the data structure by the data manager to maintain information for at least one instance of the at least one VPCID.

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).